



Photo: Lindsay Marks/UCSB

Sargassum horneri, a non-native alga, was discovered in Monterey Bay National Marine Sanctuary in 2019.

Background

Sargassum horneri (aka Devil Weed) is a large, annual brown seaweed, native from Japan to the Philippines. In 2003, the alga invaded Long Beach Harbor and rapidly spread to the Channel Islands, California down to Todos Santos, Mexico. It grows on rocky reefs in the same habitat as giant kelp and other brown algae and is most common between 5 – 20 m. This is one of three species of *Sargassum* that have become persistent in California.

Potential vectors for its introduction to California include ballast water or hull-fouling on commercial ships. It was likely spread regionally by recreational boats and natural dispersal: mature plants that become detached from the reef can drift on ocean currents while continuing to reproduce, starting new populations.

In February 2019, Hartnell College professor Jeff Hughey, Ph.D., reported finding “a dead, drift specimen of the Devil Weed (*Sargassum horneri*) on the beach” in Whaler's Cove at Point Lobos. Dr. Hughey also found reproductive individuals on the southern portion of Carmel Beach.

In June 2020, a Reef Check California volunteer diver spotted and photographed an individual attached to the substrate at a depth of 40 feet located near San Carlos Beach in Monterey.

Sargassum horneri, known as “Devil Weed,” invades Monterey Bay National Marine Sanctuary

Issue

Monterey Bay National Marine Sanctuary (MBNMS) is adjacent to commercial shipping lanes and is frequented by commercial and recreational boaters, making it vulnerable to introduced marine invasive species. Invasive species have the potential to degrade habitat, outcompete native species, and disrupt ecosystem processes.

Because *Sargassum* can be locally very abundant, grow quickly, and potentially displace native algae, there are concerns about its potential to alter nearshore ecosystems. Efforts are ongoing to monitor the species in California.

What MBNMS is doing

Protection of sanctuary resources requires MBNMS to be vigilant for invasive species so that they can be discovered when present, monitored, and studied. This leads to informed management decisions regarding removal, control, and any mitigation efforts that can be made.

The sanctuary’s management plan has an Introduced Species Action Plan with the goal to “prevent the introduction, spread and establishment of introduced species, and to control and eradicate populations of introduced species already established in MBNMS.”

Sanctuary staff are coordinating closely with the California Department of Fish and Wildlife (CDFW) and local research groups (e.g., Reef Check CA, UC Santa Cruz PISCO, and Moss Landing Marine Labs) to assess the extent of invasion and remove the invasive alga. Currently, a coordinated effort to eradicate this nascent invasion is underway.

Removal efforts should be coordinated with CDFW. While some algae can be legally taken with a current California Sport Fishing License, take within state Marine Protected Areas, such as the Monterey Breakwater’s Edward F. Ricketts State Marine Conservation, is prohibited.

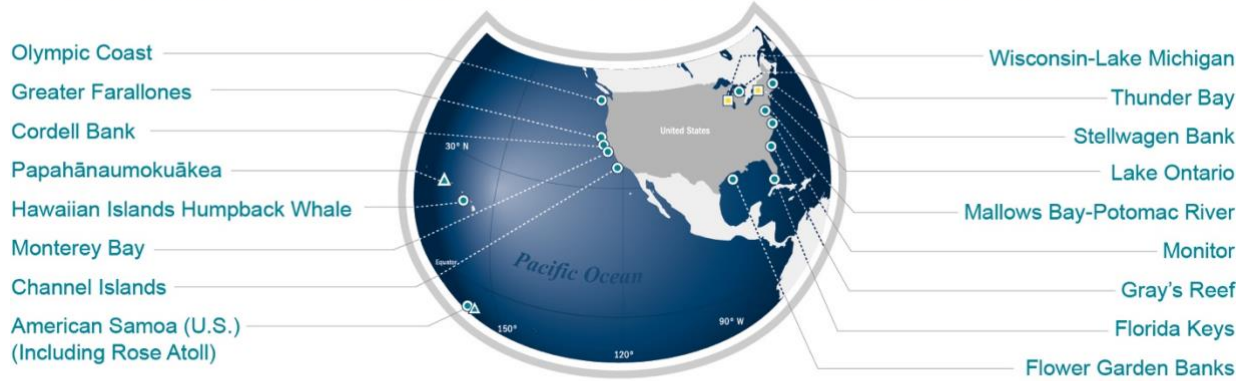
To learn more and to report your observations, visit: MarineInvasives.org



Photo: Reef Check California

Sargassum horneri seen on June 4, 2020, at the Breakwater, San Carlos Beach, Monterey.

NATIONAL MARINE SANCTUARY SYSTEM



Scale varies in this perspective. Adapted from National Geographic Maps.

- National Marine Sanctuary
- ▲ Marine National Monument
- Proposed National Marine Sanctuary



MONTEREY BAY NATIONAL MARINE SANCTUARY

Designated in 1992, Monterey Bay National Marine Sanctuary is one of the largest federal marine protected areas in the National Marine Sanctuary System for its biological richness and cultural significance. The sanctuary encompasses 6,094 square statute miles (4,601 square nautical miles) of ocean and a shoreline length of 276 miles.

The sanctuary contains diverse marine ecosystems, including deep underwater canyons, a seamount, rugged rocky shores, extensive kelp forests, wave-swept sandy beaches, and tranquil estuaries. Known as the “Serengeti of the Sea,” the sanctuary harbors an incredible variety of marine life, including at least 36 species of marine mammals, 525 species of fishes, 180 species of seabirds and shorebirds, and an abundance of invertebrates and algae.

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Photo: Chad King/NOAA

Leather sea stars are located in a kelp forests along the shores of the sanctuary.



Photo: Richard Formica

Long-billed curlews can be seen in Elkhorn Slough National Estuarine Research Reserve in the sanctuary.



Photo: Chad King/NOAA

Long-beaked common dolphins frequent sanctuary waters.

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